MODULATION OF FELINE LEUKEMIA VIRUS INFECTION

PROJECT STUDY: Novel approaches to modulation of feline leukemia virus infection

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Feline leukemia virus (FeLV) causes severe diseases in domestic and wild cats worldwide. Approximately 33% of cats exposed to FeLV become positive for the virus and remain infected, subsequently developing fatal FeLV-associated diseases, including immunodeficiencies and cancers.

There is currently no definitive treatment for FeLV, and while existing vaccines reduce the number of persistent infections in cats, they do not prevent milder infections that result in virus reservoirs with potential for conversion to infectious virus production and transmission. The long-term goal of this research is to identify safe and effective treatment strategies for prevention and elimination of persistent FeLV infections.

In the current study, the investigators tested the effects of a class of novel small molecule drugs on FeLV infection using a cell culture model. They determined that these drugs significantly reduce FeLV infection compared to untreated controls and identified mechanisms of FeLV infection that will help direct future development of treatment strategies aimed at preventing and eliminating persistent FeLV infections.

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A publication is pending.